

ABSTRACT OF THE DISCLOSURE

A data processing system includes at least a first storage system, a second storage system and a third storage system. The third storage system maintains a replication of data stored in the first storage system. When updating data in the first storage system, the first storage system updates the replication of data stored in the third storage system and creates a journal. The journal is formed from a copy of data used for update and update information such as a write command for update, etc.

The second storage system also maintains a replication of data stored in the first storage system. The second storage system obtains the journal, and updates data stored therein corresponding to data stored in the first storage system in the order of data update performed in the first storage system. When updating data stored in the third storage system corresponding to data stored in the first storage system, the third storage system creates a journal using data update numbers created in the first storage system. When the first storage system fails, the second storage system obtains the journal from the third storage system, and updates data stored therein corresponding to data stored in the first storage system in the order of data update performed in the first storage system.